Titan MOCVD for Vancouver University

EMF has announced the sale of a custom MOCVD tool to Vancouver University, Canada.

The order was won against stiff international competition, according to EMF's Jim Dixon. One of the main reasons for the selection of the EMF tool was the all-new Titan cell concept. The system will be supplied with a multiple 2 inch wafer capability and is configured for GaN research and development. The new cell incorporates many advanced features including dual carrier gas option and separate group III and group V injection.

Lawrence Berkeley's pulsed laser deposition

Using pulsed laser deposition Dale Perry, Richard Russo and Xianglei Mao have developed thin films of quaternary metal oxide catalysts involving transition, alkaline earth and alkali metal oxides. The films can be formed to contain a single metal oxide, two metal oxides or a variable stoichiometry of metal constituents and enables the creation of thin films of unique structure and composition by preserving phases that are otherwise too transient to capture. The technique could be used to make films for the development of hydrogen gas generation and sequestration technology, as well as for hazardous gas. Among the uses are active or protective semiconductor coatings. Contact:www.lbl.gov/tt/collaboration/techs/bn/1000.html

Instrument Systems opens in France

Instrument Systems, a German manufacturer of optical instrumentation for light measurement, has established a new subsidiary in Sonchamp near Paris, France. "The demand for high-quality light measuring systems is growing rapidly in France," said Richard Distl, president of Instrument Systems GmbH. "We project particularly robust development in the fields of our core competence, LED and display analysis."

Photoepoxy resists.

Nippon Kayaku Co, Japan, MicroChem Corp, US and Tomen Corporation Japan have signed a JV agreement for sale, distribution and import of resists for the MEMS and electronic materials marketplace in Asia. The company, Kayaku MicroChem Corporation headquartered in Tokyo provides sales, marketing and technical service for newly developed photo-epoxy resists developed under a joint agreement between Nippon Kayaku and MicroChem.

Nippon Kayaku is a supplier of epoxy resins and epoxy acrylate polymers for solder masks. MicroChem offers SU-8 epoxy resists for the MEMS market, as well as, other thick, photoimagable resist applications. MicroChem sells PMGI based resists for lift-off applications and PMMA resists, primarily for the compound semiconductor industry.

MIT orders dual Veeco MBE

Massachusetts Institute of Technology (MIT) has purchased a Dual GEN200 R&D MBE system from Veeco Instruments Inc. The first-of-a-kind system will be used by MIT to help advance basic science and pre-competitive technology in areas relevant to integrated optoelectronics and future applied microphotonics.

"This further verifies that our cluster tool-based system platform is the right one for customers seeking lab-to-fab solutions for optoelectronic devices," said Marlin Braun, GM of Veeco MBE Group.

The Dual GEN200 R&D system has two growth modules, each capable of 1x6-inch, 1 8-inch, or multiple 2-, 3- or 4-inch wafer production. A central cluster tool wafer handling system connects the growth modules enabling higher throughput and lower cost per wafer, in a footprint up to 60% smaller than the competition.

Cree's SiC-based 1200V Schottky rectifier

Cree has broadened its silicon carbide Schottky rectifier product family to include 1200V devices. This consists of a 5A Schottky diode in a TO-220 package and a 10A Schottky diode in a TO-247 package. These new devices are in addition to the previously released 600V family of Schottky diodes that are in production. The company is currently sampling 1200V devices and ramping up production.

The initial testing of SiC Schottky diodes as the anti-parallel diode in a 5hp motor drive shows a reduction in turn-on losses in the Si IGBT of 45%-75%. At the same time, the losses in the diode are reduced by up to 85%. This should save energy and increase the performance of electrical variable speed motors typically used in light industrial automation or HVAC units.